

CUSTOM LED 02-03 R1 INTEGRATED LED TAIL LIGHT

INSTALLATION INSTRUCTIONS



ITEMS YOU WILL NEED

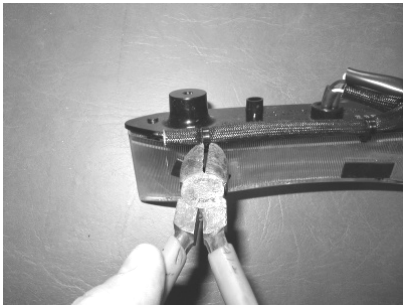
- 1) DREMOL WITH CUTTING WHEEL OR EQUIVALENT
- 2) PLIERS
- 3) WIRE SNIPS
- 4) FLAT HEAD SCREWDRIVER
- 5) PHILLIPS HEAD SCREWDRIVER
- 6) EYE PROTECTION
- 7) STOCK LED TAIL LIGHT REMOVED FROM BIKE.
- 8) GLUE GUN
- 9) CRAZY GLUE (OR EQUIVALENT)
- 10) LATEX GLOVES



BEFORE PROCEEDING PLEASE READ THESE INSTRUCTIONS THOROUGHLY. IF YOU FEEL YOU ARE UNABLE OR UNWILLING TO PERFORM THIS INSTALLATION PLEASE CONTACT A QUALIFIED TECHNICIAN. IMPROPER INSTALLATION WILL VOID WARRANTY

GETTING STARTED

IT IS HIGHLY RECOMMENDED THAT YOU USE LATEX GLOVES DURING THIS ENTIRE PROCESS. THIS WILL SAVE YOU LOTS OF CLEANING EFFORT LATER.



- 1) REMOVE THE ZIP-TIES HOLDING THE CLOTH TUBING ONTO THE LENS TO ALLOW ACCESS.



- 2) POSITION YOUR CUTTING WHEEL AT THE GLUE SEAM BETWEEN THE CLEAR LENS AND THE BLACK PLASTIC HOUSING.
- 3) PROCEED TO CUT INTO THE CLEAR LENS APPROXIMATELY HALF OF THE THICKNESS, ALL THE WAY AROUND THE PERIMETER OF THE LENS – BE SURE NOT TO CUT ALL THE WAY THROUGH BECAUSE IT WILL NOT GLUE BACK TOGETHER PROPERLY.

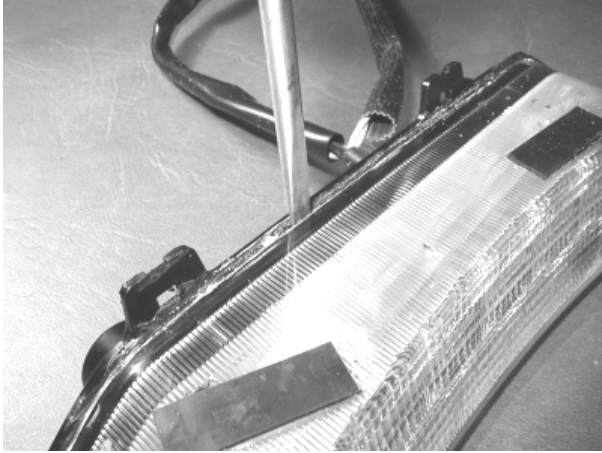
SEE "TIPS FOR CUTTING YOUR LENS" ON THE NEXT PAGE BEFORE BEGINNING.

TIPS FOR CUTTING YOUR LENS

- A) KEEP THE CUTTING WHEEL MOVING AND APPLY LIGHT PRESSURE. SITTING IN ONE SPOT WILL JUST MELT THE PLASTIC.
- B) TRY TO STAY TIGHT AGAINST THE EDGE WHERE THE CLEAR LENS AND THE BLACK BACKING MEET.

WHEN YOU MAKE YOUR WAY AROUND THE ENTIRE PERIMETER, CLEAN ALL THE BURRED PLASTIC FROM AROUND THE EDGES AND FROM INSIDE THE GROOVE YOU'VE MADE.

OPENING THE LENS



4) PLACE THE TIP OF A FLAT HEAD SCREWDRIVER IN THE GROOVE YOU HAVE CREATED.

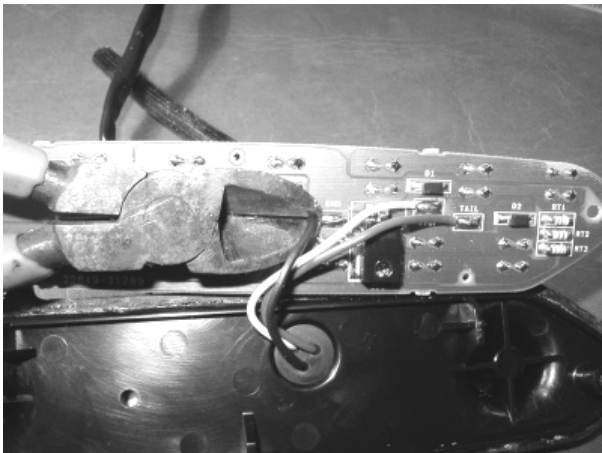
5) GENTLY TWIST THE SCREWDRIVER TO CRACK THE GLUE ALONG THE GROOVE.

NOTE: AS SOON AS YOU HEAR THE SOUND OF THE GLUE GIVING (A CRACK), MOVE THE SCREWDRIVER SLIGHTLY AND ADVANCE THE CRACK. SLOW AND STEADY IS THE NAME OF THE GAME HERE. IF YOU FIND A HARD SPOT, WEAKEN IT WITH THE CUTTING WHEEL AS NECESSARY.



HURRAY! THE HARD PART IS OVER, RELAX!

6) REMOVE THE TWO PHILLIPS SCREWS HOLDING THE STOCK LED BOARD TO THE HOUSING.



7) SNIP OFF THE THREE (3) WIRES CONNECTED TO THE STOCK LED BOARD AS SHOWN.

YOU WILL NO LONGER NEED THE STOCK LED BOARD, DISPOSE OF IT AS YOU WISH.

NOTE: OLDER CIRCUIT BOARD VERSION SHOWN IN THE FOLLOWING PROCEDURES, BUT INSTALLATION IS THE SAME

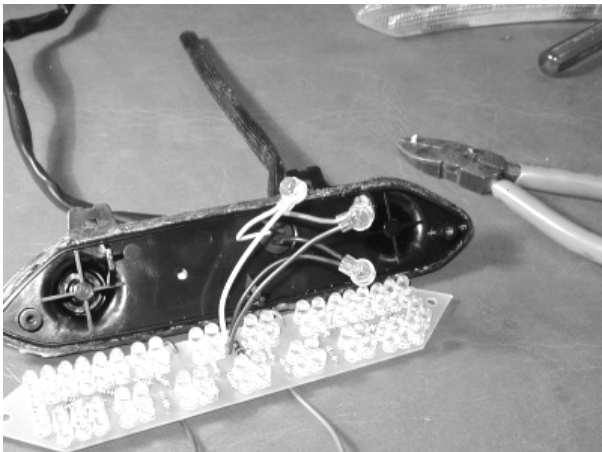
WIRING UP YOUR CUSTOM LED BOARD

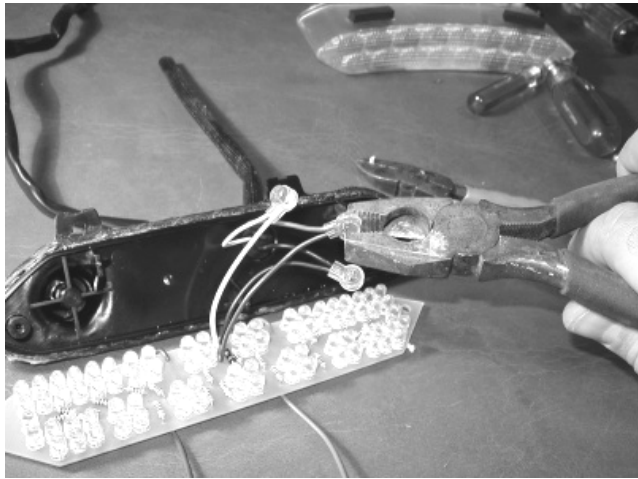
8) MATCH THE WIRE COLORS AS FOLLOWS:

- BLACK ON HARNESS TO 3" BLACK ON CUSTOM LED BOARD
- YELLOW ON HARNESS TO 3" YELLOW ON CUSTOM LED BOARD
- BLUE ON HARNESS TO 3" BLUE ON CUSTOM LED BOARD

USE THE THREE (3 OF 5) SUPPLIED ORANGE SPLICE CONNECTORS AS THEY ARE WATERPROOF. PUSH THE TWO WIRES TO BE SPLICED TOGETHER INTO THE OPEN END. BE SURE TO PUSH THE WIRES ALL THE WAY IN (UNTIL YOU CAN SEE THEY HAVE REACHED THE OTHER SIDE).

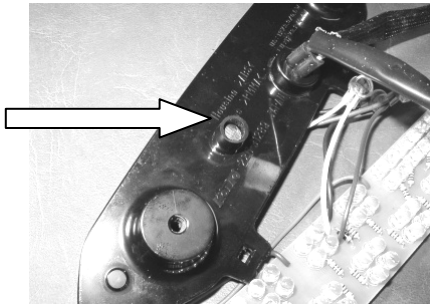
NOTE: THE SPLICE IS MORE RELIABLE IF THE WIRE IS NOT STRIPPED. BE SURE TO SNIP OFF THE BARE ENDS OF THE WIRES TO BE SPLICED TO ENSURE THAT THERE IS INSULATION WHERE THE SPLICE WILL OCCUR. THE SUPPLIED SPLICE CONNECTORS AUTOMATICALLY DISPLACE THE INSULATION AS NECESSARY.



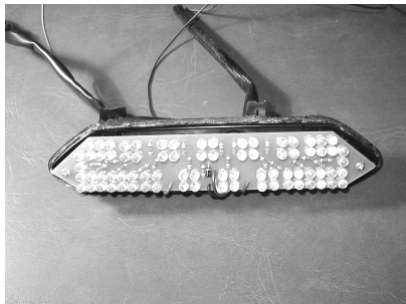


ONCE YOU DOUBLE CHECK YOUR COLOR MATCHING AND ARE ABSOLUTELY SURE THAT THE WIRES ARE FULLY INSERTED INTO THE SPLICE CONNECTORS DO THE FOLLOWING:

9) SQUEEZE THE SPLICE CONNECTORS FIRMLY WITH PLIERS. VISUALLY INSPECT YOUR CONNECTIONS TO SEE THAT THEY HAVE BEEN SPLICED PROPERLY INSIDE.



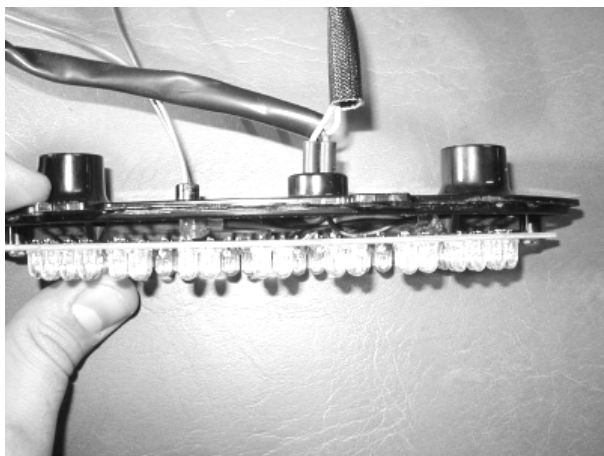
10) REMOVE THE RUBBER TUBE AND CLOTH SHOWN AND SNAKE THE 24" BROWN AND GREEN LEADS FROM THE CUSTOM LED BOARD THROUGH THIS OPENING - THESE ARE YOUR BLINKER WIRES.



MOUNTING YOUR CUSTOM LED BOARD

11) CAREFULLY PLACE THE SPLICE CONNECTORS AND WIRES BEHIND THE CUSTOM LED BOARD AND SCREW IT DOWN GENTLY USING THE SAME SCREWS THAT FASTENED THE STOCK LED BOARD.

WARNING: DO NOT OVER TIGHTEN THE SCREWS AS IT MAY CRACK THE CUSTOM LED BOARD. SNUG IS ALL YOU NEED.



12) TAKE A LOOK BEHIND THE BOARD TO BE SURE THAT EVERYTHING IS SITUATED NICELY. BE SURE THAT NOTHING IS PINCHED OR PROPPED UP TIGHT AGAINST THE CUSTOM LED BOARD. ALSO, BE SURE THAT NONE OF THE WIRES ARE PRESSED TIGHT AGAINST ANY OF THE SHARP SOLDER POINTS.

RESEALING YOUR LENS

CONGRATULATIONS! YOU'RE ONE STEP AWAY FROM FULFILLING YOUR WILDEST DREAMS - OK, MAYBE NOT, BUT YOU'RE ALMOST DONE WITH YOUR CUSTOM LED R1 TAIL!

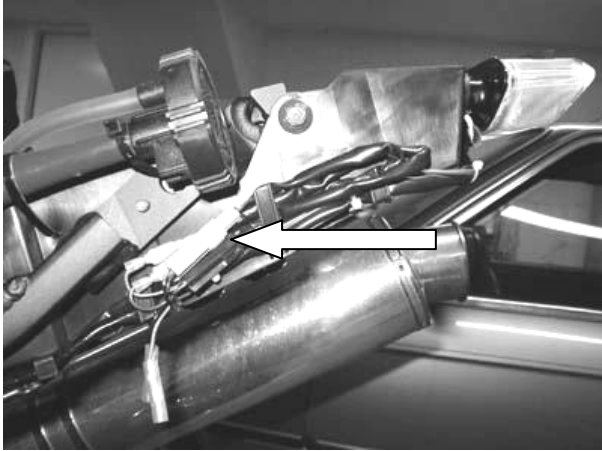
IT IS SUGGESTED AT THIS POINT THAT YOU PLUG IN THE TAIL LIGHT TO VERIFY THAT THE WIRING IS DONE CORRECTLY BEFORE RESEALING THE LENS. THE RUNNING LIGHT AND BRAKE LIGHT SHOULD WORK PROPERLY.

13) RE-SEAL YOUR LENS GLUE OF YOUR CHOICE. WE HIGHLY RECOMMEND HOT GLUE AS IT DOES NOT CONTAIN VAPORS THAT PERMINANTLY DISCOLOR THE LEDS OR THE LENS. THE PROPER WAY TO USE HOT GLUE IS TO MOUNT THE LENS ON THE BUCKET AND RUN A BEAD OF HOT GLUE IN THE CUT RIDGE YOU MADE WITH THE DREMOL. MAKE SURE YOU WORK SLOWLY AND ALLOW THE GLUE TO PENETRATE INTO THE RIDGE.

14) ALLOW THE GLUE TO SET BEFORE DOING ANY MORE WORK.

WIRING THE BLINKERS

15) AFTER ALLOWING THE GLUE ON THE LENS TO SET, MOUNT THE TAIL UNIT BACK ON THE MOTORCYCLE.



16) LOCATE THE BLINKER WIRES ON THE MOTORCYCLE. IF YOU HAVE NOT REMOVED THE STOCK BLINKERS YET, YOU CAN SIMPLY FOLLOW THE WIRES. OTHERWISE THEY HAVE A GREY AND A BLACK PLUG AS SHOWN IN THE PICTURE.

YOU HAVE TWO (2) OPTIONS FOR WIRING YOUR CUSTOM LED BLINKER WIRES.

A) MAINTAIN THE STOCK PLUG IN TYPE CONNECTION AS SHOWN WITH THE ARROW BY CUTTING THE WIRES OFF OF THE STOCK BLINKERS AND USING THE SUPPLIED ORANGE SPLICE CONNECTORS (RECOMMENDED).

-OR-

B) USE THE NON DESTRUCTIVE RED TAP CONNECTORS TO SPLICE INTO THE WIRING ON THE MOTORCYCLE.

WHICHEVER ROUTE YOU DECIDE TO GO, YOU WILL NEED TO CONNECT THE 16" BROWN AND GREEN WIRES FROM THE CUSTOM LED TAIL AS FOLLOWS:

- GREEN BLINKER WIRE ON BIKE TO 16" GREEN WIRE FROM CUSTOM LED TAIL.
- BROWN BLINKER WIRE ON BIKE TO 16" BROWN WIRE FROM CUSTOM LED TAIL.

17) NEATLY ZIP TIE OR TAPE THE WIRES TOGETHER FOR A TROUBLE FREE INSTALL!

ENJOY!!

TROUBLESHOOTING

YOU MAY FIND THAT YOUR BLINKERS BLINK FASTER NOW THAT YOU HAVE REMOVED THE STOCK TURN SIGNALS IN THE REAR OF THE BIKE. THIS IS THE DESIGNED RESPONSE OF THE FLASHER RELAY – AND IT IS OK TO LEAVE IT THIS WAY. IF YOU WISH TO SLOW YOUR BLINK RATE, YOU MUST REPLACE YOUR FLASHER RELAY OR ADD LOAD TO THE SYSTEM. THE CUSTOM LED ELECTRONIC LED FLASHER RELAY OR LOAD EQUALIZERS ARE THE PERFECT SOLUTION FOR THIS! SEE [HTTP://WWW.CUSTOMLED.COM](http://www.customled.com) FOR MORE INFORMATION.

IF YOU HAVE REPLACED THE FRONT TURNS SIGNALS WITH LEDS ALSO, YOU MAY FIND THAT YOUR BLINKERS DON'T BLINK AT ALL - YOU MUST REPLACE YOUR FLASHER RELAY OR ADD LOAD TO THE SYSTEM TO FIX THIS PROBLEM. AGAIN, THE CUSTOM LED ELECTRONIC LED FLASHER RELAY OR LOAD EQUALIZERS ARE PERFECT FOR THIS. VISIT [HTTP://WWW.CUSTOMLED.COM](http://www.customled.com).

IF YOUR TAIL LIGHT IS NOT FUNCTIONING PROPERLY, CHECK YOUR CONNECTIONS CAREFULLY! THE CUSTOM LED INTEGRATED TAIL LIGHTS ARE TESTED "GOING INTO THE BOX." YOU CAN SAVE YOURSELF A LOT OF AGGRAVATION BY SIMPLY DOUBLE AND TRIPLE CHECKING YOUR WIRING. IN THE EVENT THAT YOU MAY HAVE A FAULTY UNIT, PLEASE CONTACT YOUR VENDOR FOR ASSISTANCE OR E-MAIL SUPPORT@CUSTOMLED.COM.

DISCLAIMER

BY SELLING YOU THIS PRODUCT, WE MAKE NO GUARANTEE THAT THE USE OF THIS PRODUCT CAN OR WILL HELP REDUCE THE CHANCE OF ACCIDENTS IN ANY WAY, NOR ARE WE LIABLE IN ANY WAY. IT IS YOUR RESPONSIBILITY TO VERIFY PROPER FUNCTIONALITY OF THIS PRODUCT EVERY TIME YOU START YOUR MOTORCYCLE.

FURTHERMORE, IT IS YOUR RESPONSIBILITY TO FOLLOW THE LAWS OF YOUR LOCAL JURISDICTIONS AS FAR AS D.O.T. REQUIREMENTS FOR MARKER LIGHT AND BLINKER LIGHT SHAPE, COLOR AND INTENSITY.

THIS PRODUCT IS SOLD "FOR OFF-ROAD USE ONLY."

CUSTOM LED TAIL LIGHT PROGRAMMING INSTRUCTIONS

YOUR TAIL LIGHT IS EQUIPPED WITH A UNIQUE INTERFACE THAT ALLOWS YOU TO CUSTOMIZE CERTAIN FEATURES OF THE TAIL LIGHT. THIS INTERFACE IS ACCESSED AND CONTROLLED VERY SIMPLY THROUGH THE GRAY STROBE MODE CONTROL WIRE. (NOTE: ONLY TAIL LIGHTS WITH “_PI2” IN THE PART NUMBER HAVE THE PROGRAMMING FEATURES BELOW.)

YOU WILL NEED TO HAVE THE STROBE MODE CONTROL WIRE CONNECTED TO GROUND (-) THROUGH A TOGGLE SWITCH FOR EASY PROGRAMMING, AND THE TAIL LIGHT WILL HAVE TO BE PROPERLY INSTALLED AND FUNCTIONING ON THE MOTORCYCLE.

FOR SIMPLICITY, THE GRAY WIRE WILL BE CALLED THE “CONTROL WIRE” AND IT WILL BE ASSUMED THAT YOU HAVE THE CONTROL WIRE CONNECTED TO A TOGGLE SWITCH WITH AN “ON” (GROUNDED) AND “OFF” (UNGROUNDED) POSITION. THIS WILL BE CALLED THE CONTROL SWITCH FROM NOW ON.

ACCESSING THE PROGRAMMING INTERFACE

A) WITH THE CONTROL SWITCH ON, TURN ON THE MOTORCYCLES IGNITION, THEN TURN OFF THE CONTROL SWITCH (YOU HAVE SUCCESSFULLY ENTERED PROGRAM MODE IF THE TAIL LIGHT REMAINS LIT DIMLY YELLOW)

NOTE: ANY INPUTS TO THE TAIL LIGHT (BRAKE OR TURN) WILL PULL THE TAIL LIGHT OUT OF PROGRAM MODE FOR SAFETY REASONS.

CUSTOMIZING FEATURES

ONCE YOU HAVE ACCESSED THE PROGRAMMING INTERFACE, YOU CAN CUSTOMIZE THE FOLLOWING MENUS.

- 1) TURN THE STARTUP SEQUENCE ON/OFF.
- 2) SET THE BRAKE ALERT PATTERN (SEE SUPPLEMENTAL PROGRAMMING MANUAL AT [HTTP://WWW.CUSTOMLED.COM](http://www.customled.com) ON PRODUCT PAGE)
- 3) SET THE RUNNING LIGHT BRIGHTNESS WITHIN A PRESET RANGE.
- 4) SET THE BRAKE LIGHT BRIGHTNESS WITHIN A PRESET RANGE.
- 5) ENTER DEMO MODE. (USEFUL FOR BIKE SHOWS AND DISPLAYS)
- 6) RESET FACTORY DEFAULTS (SAME AS WHEN THE TAIL LIGHT WAS MANUFACTURED).

SELECT THE MENU ITEM YOU WISH TO ACCESS AND MODIFY. ENTER THE MENU BY DOING THE FOLLOWING:

B) TURN THE CONTROL SWITCH ON AND OFF THE NUMBER OF TIMES CORRESPONDING TO THE MENU NUMBER YOU WISH TO ENTER.

FOR INSTANCE, TO CHANGE THE BRAKE ALERT PATTERN, YOU WOULD TURN THE CONTROL SWITCH ON AND OFF TWICE. FOR EXAMPLE: ON, OFF, ON, OFF. (NOTE: YOU MUST COMPLETE THE ON-OFF SEQUENCE WITHIN 10 SECONDS.)

AFTER APPROXIMATELY 5 SECONDS, THE TAIL LIGHT WILL “READ BACK” THE MENU NUMBER BY BLINKING ON AND OFF THE CORRESPONDING NUMBER OF TIMES YOU HAVE SELECTED. THE TAIL LIGHT WILL THEN ENTER THE CUSTOMIZATION MODE FOR THAT MENU ITEM.

FOR THE BRAKE ALERT EXAMPLE ABOVE, THE TAIL LIGHT WILL NOW DISPLAY THE BRAKE ALERT PATTERN THAT IS CURRENTLY SET (THIS WILL HAPPEN IMMEDIATELY AFTER THE READ-BACK).

C) TO CUSTOMIZE THE MENU ITEM YOU HAVE ACCESSED, SIMPLY USE THE CONTROL SWITCH TO ADVANCE THE FEATURE TO THE NEXT VALUE.

EACH TIME THE CONTROL SWITCH IS TURNED ON AND OFF, THE ITEM WILL ADVANCE TO THE NEXT VALUE AND EVENTUALLY CYCLE BACK AROUND TO THE FIRST SETTING.

D) WHEN YOU HAVE SELECTED THE VALUE YOU WANT, SIMPLY TURN OFF THE IGNITION.

THE SETTING YOU CHOSE WILL BE STORED INTO THE NON-VOLATILE MEMORY WHICH MEANS IT SHOULD STAY THE SAME UNTIL THE NEXT TIME YOU CHANGE IT!

ONLY ONE MENU ITEM CAN BE ACCESSED AT A TIME. TO CHANGE ANOTHER MENU ITEM, REPEAT THIS PROGRAMMING PROCEDURE FROM THE BEGINNING.